

Abstract

A multiple description coder generates a number of different descriptions of a given portion of a signal in a wireless communication system, using multiple description scalar quantization (MDSQ) or another type of multiple description coding. The different descriptions of the given portion of the signal are then arranged into packets such that at least a first description of the given portion is placed in a first packet and a second description is placed in a second packet. Each of the packets are then transmitted using a frequency hopping modulator, and the hopping rate of the modulator is selected or otherwise configured based at least in part on the number of descriptions generated for the different portions of the signal. For example, in an embodiment in which two descriptions are generated for each portion of the signal, a first description for a current one of the portions of the signal is placed in a current packet along with a second one of the descriptions for a previous portion of the signal, and the frequency hopping rate of the modulator is doubled relative to a hopping rate used for single description transmission.